

OCTOBER 14, 1934

GUEST, DR. CLYDE FISHER

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AMERICAN BOSCH-RADIO EXPLORER'S CLUB

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5:30 - 5:45 P.M. -

OCTOBER 14, 1934

SUNDAY

(SIGNATURE.. "SAILOR'S HORNPIPE".... ACCORDION)

OPENING ANNOUNCEMENT:

Presenting - the weekly meeting of the American-Bosch Radio
Explorer's Club!

(SIGNATURE OUT)

ANNOUNCER: Come sail the seven seas with us!

(WIND AND WAVE EFFECTS)

Explore the wild jungles of Africa!

(JUNGLE EFFECTS)

Visit the cannibal countries!

(TOM TOMS)

Circle the globe with the American-Bosch Round-the-World
Radio!

(GUST OF WIND)

CAPTAIN BARKER:

Ahoy there, boys and girls! This is Captain James P. Barker, speaking. Rouse out Mother and Dad too, for today's muster of the American Bosch Radio Explorer's Club is going to be of tremendous interest to all hands. We have with us the famous astronomer, Dr. Clyde Fisher, who has spent a lifetime delving into the mysteries of the stars. And I'll warrant that's a subject we're all interested in!

As a master-mariner, I certainly am!

I suppose you all know that accurate navigation depends almost entirely upon observation of the sun and stars. But what, you may ask, does the mariner do when the skies are cloudy and the heavenly bodies cannot be seen? Well, in weather like that, we sailors must rely on dead-reckoning - Dead-reckoning, by the way, is the calculation of a ship's position by her speed and compass courses, with an allowance for leeway or drift, as you landlubbers would call it.

Speaking of dead-reckoning reminds me of a voyage I made in the ship British Isles, from Frisco to the United Kingdom, in 1903. From the time we crossed the twenty-fifth parallel in the South Pacific the sky became overcast and gloomy, and for many days the Old Ship swept down towards Cape Horn, before heavy gales and monstrous seas. For over a week, sights were out of the question and our daily positions were uncertain.

One morning, when I had estimated our position to be about a hundred-and-seventy miles East-by-North from Cape Horn, I went on deck and ordered the mate to heave the deep sea lead - a heavily weighted line which is used for sounding the depth.

"According to my dead-reckoning, Mister," I said to him, "we're over the Burwood Bank."

"The Burwood Bank!?" he exclaimed! "Why, it's been eleven days, and we've sailed 1500 miles since our last sight of the sun. How can you be so sure of our position, sir?"

But when ten minutes later he hove the lead, he was amazed to find a depth of only fifty fathoms, sandy bottom - positive proof that we were over Burwood Bank, a tiny patch of shallows in that immense expanse of desolate ocean.

And to be perfectly frank, I was rather taken aback myself though I never admitted it to the mate.

Well, now, on with the main adventure of our meeting. Here's our good friend and fellow member, Hans Christian Adamson, of the American Museum of Natural History, who will interview the celebrated astronomer Dr. Clyde Fisher.

But just a minute - Tell me, Hans, what's the white powder in that jar you're holding? It looks like flour.

ADAMSON: Well, Captain, I have been wondering about that myself. Dr. Fisher brought it here. What is it anyway, Doctor?

DR. FISHER: Why it is star-dust.

ADAMSON: Star-dust! Where did you pick it up - on Mars?

FISHER: Oh, no, nothing like that. I found it in a hole in the ground down in Arizona.

ADAMSON: Star-dust -- from a hole in the ground. That sounds like a good story, Clyde -- let's have it.

FISHER: Allright! But we'll have to travel 93,000,000 miles to the sun, and go back 50,000 years to the time when a piece of Old Sol was torn loose by a passing star and flung into space.

From
ADAMSON: A piece of the Sun - but how big a piece?

FISHER: Oh, about as big as Australia.

From
ADAMSON: Ye Gods, Doctor, are you spoofing?

FISHER: No, I'm not, and this enormous piece of the sun flew around the sun in its own orbit for millions of years, until it finally crashed into the earth.

ADAMSON: What a wallop that must have been! How much did ~~this~~ *that* chunk weigh?

FISHER: Oh, possibly 10,000,000 tons. But of course this meteor - as we call it - cooled and shrank after it was pulled out of the sun. It changed from a hot gaseous condition to a very cold solid mass. And when it finally landed in Arizona it was less than a mile in diameter.

From
ADAMSON: Now, wait a minute....*Dr. Fisher* let's get this straight! How in the world could this meteor shrink from the size of Australia to a mere mountain a mile wide?

FISHER: Well you see, this is what happened. The temperature of the meteor when it left the sun was about 10,000 degrees Fahrenheit. This terrific heat was soon lost in outer space, and all the while this gaseous piece of the sun was shrinking until it became an absolutely cold solid chunk composed mostly of iron.

From
ADAMSON: I see.

FISHER: In other words it changed from a flying flame into a mass that was frozen to the core.

ADAMSON: Hm! That sounds weird! Just how cold did it get?

FISHER: Oh, 461 degrees below zero, Fahrenheit.

ADAMSON: 461 below: Do you know any way of telling me just how cold that is? I can't imagine it.

FISHER: Oh, a piece of ice in your refrigerator is about 32 degrees above zero.

ADAMSON: How utterly fantastic! That means that a meteor is - let's see - about fifteen times colder than a cube of ice!

FISHER: *Mr. Adamson*
That's right, Hans - But stranger things are yet to come. When the meteor entered the earth's atmosphere the friction set up ignited it again on the outside. And when the meteor plunged toward earth, it once more became a flying flame with millions upon millions of candle power of light. Why the blinding glare thrown by that meteor as it dashed toward earth was probably brighter than the combined lights of all the electric globes in New York City.

ADAMSON: Some light---and that would have been quite an electric bill. What happened next?

FISHER: Well, the meteor struck the earth with such terrific force it made a crater that looks like a great shell-hole ---600 feet deep, a mile across, and three miles around the rim.

Good
ADAMSON: It must have hit a sand heap to make that much of a hole!

FISHER: No - as a matter of fact it crashed through limestone and bored into the sand-stone beneath.

Travel
ADAMSON: Oh - I see - but tell me, how long did it take this meteor to travel the 90,000,000 odd miles between the sun and the earth?

FISHER: No one knows, *Heaven* ~~Hans~~, for it didn't come directly. When it finally struck the earth's atmosphere, it may have been moving as rapidly as 25 miles a second.

ADAMSON: 25 miles a second! Why that's --let's see -- 1,500 miles a minute! -- And 1,500 miles a minute - why Dr. Fisher, that's 90,000 miles an hour - some speed!!!

FISHER: Yes, sir - some speed! But then meteors move like chain lightning, you know. As a matter of fact, if it weren't for the blanket of atmosphere that surrounds the earth, we'd have to carry steel umbrellas. And ladies would be wearing trench helmets instead of Paris hats.

Travel
ADAMSON: An amusing possibility. But why is that?

FISHER: Well, you see, Mother Earth's atmosphere blanket is really a bullet-proof vest. It stops and destroys the barrage of meteors that constantly bombards the earth.

ADAMSON: Do you mean to say that meteors fall all the time?

FISHER: Do they! - Why it's estimated that in the course of a day 15 to 20 million meteors enter the earth's atmosphere.

ADAMSON: 20 million meteors a day!----How big are they?

FISHER: Oh, they range in size from fine grains of sand to bird shot. Some are larger, but they're comparatively few.

FISHER: (CONT) A meteor is cold, dark and invisible until it enters the earth's surface, but during the few seconds it takes to plunge through the earth's atmosphere, the friction of its speed creates a fire that reveals it -- and -- usually consumes it.

ADAMSON: In other words, most of the meteors are turned into ashes.

FISHER: That's right. In fact, it's estimated that meteors add 10 to 15 million pounds a year to the weight of Mother Earth.

ADAMSON: From that it would seem that star-dust has no place on a reducing diet. But where do meteors come from -- and what are they made of?

FISHER: Well, Hans, that's a hard question to answer. Some meteors are the remnants of broken down comets. Others are chunks of material that are believed by some astronomers to enter our solar system from outer space.

ADAMSON: Hmmm --- That's hard to imagine, isn't it -- But tell me, Doctor, is there any danger of airplanes being hit by meteors?...The other day I read how Archie Anderson, who flies one of the big airliners on the west coast, thought he came so close to a meteor that he kicked the rudder hard and swung his controls over quickly to escape it.

FISHER: I heard about the same incident, Hans, but I doubt if it would have done Anderson any good to swing off his course, if the meteor was close enough to hit him. You see it travels almost 500 times faster than even the speediest transport plane.

FISHER:(CONT) And that reminds me of another pilot who passed a meteor in the night -- Bill Coyle, who flies the air-mail across the southwest. One March night in 1933, as he was droning along under a starry sky, a meteor suddenly flashed across his course. It came so close that he could almost feel its blast. Coyle said later that the meteor looked as big as Wichita Airport -- and I believe him.

ADAMSON: What about the danger of being smashed by those things?

FISHER: Well, there's undeniably some danger of being hit by big meteors. But that's equally true whether you're in a plane or sitting in an armored tank. In other words, Hans, the probability of injury is extremely small and it makes no difference whether you're on land, in the air or on the sea. So far as I know, there's no well-authenticated case in which a meteor has taken human life.

ADAMSON: Pretty strange, I'd say -- Just one more question. What happens to the meteors that penetrate Mother Earth's bullet-proof air vest? Where do they fall?

FISHER: It's hard to say -- Meteors have a mysterious way of disappearing. Very few are found. It's probable that many of them fall into the sea, lost forever as far as we're concerned.

ADAMSON: Thanks, Dr. Fisher -- I sure enjoyed meeting the meteors, but I wouldn't like to have one meet me!...How about you Capt. Barker?

CAPT.BARKER: Frankly, I wouldn't either, Mr. Adamson -- But, speaking of stars -- who's going to join our Microphone Party next Sunday?

ADAMSON: None other than Captain Craige of Uncle Sam's Marines, Captain....He probably knows more about the Black Magic or Voodooism in Haiti than any other man alive.

BARKER: Voodooism, eh? -- That will be mighty interesting to me, and I'm sure it will be to the many members of our club. You know the Radio Explorers Club is fast becoming a world wide organization. Just before the broadcast I received this telegram from the head of the Boy Scout Troop in Elmira, New York. It says: - "Will be listening to Dr. Fisher this afternoon with all members of Troop 8. Also Scout Commissioner McDowell and Scout Master Sides." It's signed "Baker, Chief Scout Executive." Applications for membership are pouring in from boys and girls not only from every state in the Union but from all over the world. Here's a mighty interesting letter, typical of many I have received from abroad. It's from William Cumber, London, England, and says: -- I happened to listen to station W8XK, and heard the programs sponsored by your company. I also heard your invitation to join the Radio Explorers Club, and I don't know whether you allow membership abroad. If so, I would like to join." We certainly do, William.

(OVER)

BARKER: (CONT) Now for the benefit of any who are attending our meeting for the first time, let me say that every boy and girl listening in is invited to become a member of the Radio Explorers Club. Membership, remember, entitles you to receive entirely free of charge, the membership button -- and it is a dandy button I may tell you -- the handsome membership certificate with your own name on it and bearing the reproduction of my old ship the British Isles; and the Radio Explorers Club Authorized Map of the world, showing the important short wave stations all over the globe. And in addition to all this, those who apply for membership this week will receive a mighty interesting photograph of Dr. Fisher, showing him in his flying suit, camera in hand, ready to take off for the stratosphere. Ben Grauer, here, is waiting to tell you how easy it is for you to join.....so I'll say fair winds and clear sailing to you until next Sunday.

ANNOUNCER: Easy, Captain Barker? I'll say it's easy! To join, the American-Bosch Radio Explorers Club, merely send your name and address with the name and age of the radio set to which you are listening - to American-Bosch, American B-O-S-C-H, Springfield, Massachusetts.

Most of us perhaps cannot afford either the time or money to travel to foreign lands. But if you cannot visit them, if you cannot see them....you can hear them...with an American-Bosch Round-the-World Radio.

ANNOUNCER: (CONT)

Europe, Asia, Africa, South America - the whole wide world - is at your fingertips...and we mean fingertips literally - for foreign tuning has been made easy and almost effortless with the Multi-Wave Selector, used exclusively in American-Bosch Round-the-World Radio. Dealers are now showing American-Bosch consoles and table models with round-the-world range.....as well as beautiful little personal radios that enable you to tune-in exciting police calls....American-Bosch radios for every purse and purpose -- that embody engineering improvements and style features found in no other radio sets anywhere at any price. Look, and listen, to the new 1935 American-Bosch Round-the-World Radios -- at your dealers.

(SIGNATURE FADES IN)

ANNOUNCER: The American-Bosch Radio Explorers Club meets here every Sunday afternoon with Captain James P. Barker in command. Famous explorers are guests of the club each Sunday under special arrangements with the American Museum of Natural History. Next week: - Black Magic and Voodooism in Haiti with Captain Craige, who will be interviewed by Hans Christian Adamson.

(SIGNATURE FADES)

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